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EXAMINER

HUNTSINGER, PETER K

ART UNIT

PAPER NUMBER

2624

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,822

Applicant(s)

TOMIDA ET AL.

Examiner

Peter K. Huntsinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☒ Claim(s) 13-15 and 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 21 is objected to because of the following informalities: After the statement on page 75, lines 8-9, "a memory which stores the received printer driver and said changed data targeted for printing" there should be a semicolon. Appropriate correction is required.
3. Claims 13-15 objected to because of the following informalities: There is insufficient antecedent basis for the limitation in the claims. Claims 13 (line 14) and 14 (line 18) recite the limitation "said printing condition". Claim 15 recites the limitation "the printing condition". There is insufficient antecedent basis for these limitations in claim 11. The examiner suggests that claims 13-15 are mislabeled in referring to "the print support method according to claim 11" and should be changed to the print support method according to claim 12. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 2, 4, 5-8, 22, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Cromer et al. U.S. Patent 6,493,104.

Referring to claim 1, Cromer et al. discloses a peripheral device (printer 108 of Fig. 1) capable of being connected to a portable communication terminal (wireless device 260 of Fig. 2) accessible to a server device on a network (portable computer 110 of Fig. 1), said peripheral device comprising: an interface configured to be connected to said portable communication terminal (wireless interface 116 of Fig. 1, col.3, lines 37-43); and an access device configured to access said server device by a circuit connection function of said portable communication terminal and download data registered in said server device by said portable communication terminal (network adaptor 109 of Fig. 1, col. 5, lines 18-24).

Referring to claim 2, Cromer et al. discloses the peripheral device according to claim 1, further comprising a printer configured to print the data downloaded by said access device (printer 108 of Fig. 1, col. 3, lines 33-49).

Referring to claim 4, Cromer et al. discloses a printing apparatus (printer 108 of Fig. 1) capable of being connected to, as a peripheral device, a portable communication terminal (wireless device 260 of Fig. 2) accessible to a server device on a network (portable computer 110 of Fig. 1), said printing apparatus comprising: an interface configured to be connected to said portable communication terminal (wireless interface 116 of Fig. 1, col.3, lines 37-43); an access device configured to access said server device by a circuit connection function of said portable communication terminal and download data registered in said server device by said portable communication terminal (network adaptor 109 of Fig. 1, col. 5, lines 18-24); and a printer configured to print the data downloaded by said access device (step 422 of Fig. 4).

Referring to claim 6, Cromer et al. discloses the printing apparatus according to claim 4, further comprising a radio communication device configured to establish a radio communication circuit with said portable communication terminal (antenna 118 of Fig. 1, col. 3, lines 37-43 and antenna 120, col.5, lines 18-24).

Referring to claim 7, Cromer et al. discloses a data acquisition method comprising: connecting a portable communication terminal to a server device on a network (serial interface 266 of Fig. 2, col. 5, lines 18-24); registering in said server device data to be acquired by a peripheral device connected to said portable communication terminal which is selected among from browsable data provided by said

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server device (print data) and disconnecting said portable communication terminal from said server device (step 308 of Fig. 3, col. 6, lines 8-9); connecting said portable communication terminal to said server device by a peripheral device when the peripheral device is connected to said portable communication terminal (step 404, col. 6, lines 15-19), using a circuit connection function of the portable communication terminal (network adaptor 109 of Fig. 1, col. 5, lines 18-24); and downloading data registered in said server device to said peripheral device (step 422 of Fig. 4, col. 6, lines 45-47).

Referring to claim 8, Cromer et al. discloses the data acquisition method according to claim 7, wherein said downloaded data is printed by said peripheral device (printer 108 of Fig. 1, col. 3, lines 33-49).

Referring to claim 22, Cromer et al. discloses a portable communication terminal (wireless device 260 of Fig. 2) capable of accessing to a server device on a network (portable computer 110 of Fig. 1) and downloading data provided by said server device, said portable communication terminal comprising: an interface for connecting an external device (wireless interface 264 of Fig. 2, col. 5, lines 18-24); an acquisition device which acquires from said server device (system management bus 238 of Fig. 2, col. 5, lines 18-24), a data processing program that corresponds to the external device connected to said interface (driver, col. 5, lines 58-64); and a transfer device which processes data downloaded from said server device by means of the data processing program acquired by said acquisition means and transmits the processed data to said

external device connected to said interface (serial interface 266 of Fig. 2, col. 5, lines 18-24).

Referring to claim 23, Cromer et al. discloses the portable communication terminal according to claim 22, wherein said external device comprises a printer (printer 108 of Fig. 1) and said data processing program comprises a printer driver which converts the data downloaded from said server device into print data that can be printed by said printing apparatus (driver, col. 5, lines 58-64).

5. Claims 4 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Herrod et al. U.S. Patent 6,405,049.

Referring to claim 4, Herrod et al. discloses a printing apparatus (printer 44 of Fig.3) capable of being connected to, as a peripheral device, a portable communication terminal (cradle 12 of Fig. 2b) accessible to a server device on a network (host 15 of Fig. 2b), said printing apparatus comprising: an interface configured to be connected to said portable communication terminal (col. 26, lines 33-35); an access device configured to access said server device by a circuit connection function of said portable communication terminal and download data registered in said server device by said portable communication terminal (col. 26, lines 29-35); and a printer configured to print the data downloaded by said access device (printer 44 of Fig. 3).

Referring to claim 5, Herrod et al. discloses the printing apparatus according to claim 4, wherein said interface and said access device are mounted on an adapter

connecting said portable communication terminal and said printing apparatus (cradle 12 of Fig. 2b, col. 7, lines 6-10).

6. Claims 11, 12 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Taniguchi et al. U.S. Patent 6,348,972.

Referring to claim 11, Taniguchi et al. discloses a print support method comprising: receiving printer identification information (S605 of Fig. 6, col. 6, lines 61-67) for identifying a printer (P1 of Fig. 1) connected to a portable communication terminal (network interface circuit 10 of Fig. 4) from the portable communication terminal via a network; acquiring data targeted for printing specified by said portable communication terminal (S608 of Fig. 6, col. 7, lines 16-19); generating print data for printing said acquired data targeted for printing by said printer based on said printer identification information and said acquired data targeted for printing (S612 of Fig. 6, col. 7, lines 34-39); and transmitting said generated print data to said portable communication terminal via said network (S612 of Fig. 6, col. 7, lines 34-39). According to Taniguchi et al., S605 involves selecting a computer with a specific printer. In the next step the computer sends data to the specific printer, and while it is not explicitly stated by Taniguchi et al., it would be conventional for the computer to obtain printer identification for sending data to the printer.

Referring to claim 12, Taniguchi et al. discloses the print support method according to claim 11, further comprising receiving printing condition for printing data targeted for printing from said portable communication terminal via said network (S609

of Fig. 6, col. 7, lines 21-23) and changing said data targeted for printing based on the received printing condition, wherein, at said generating, print data for printing said changed data targeted for printing by said printer is generated based on said printer identification information and said changed data targeted for printing (S611-S612 of Fig. 6, col. 7, lines 29-37). The print condition as disclosed by Taniguchi et al. is a password required for the data to be sent to the printer. The password is checked and the data is either changed by directing the data to the printer or preventing the printer from receiving the data.

Referring to claim 20, Taniguchi et al. discloses a print support system comprising: a data processing unit (C1 of Fig. 1) for a print support; at least one portable communication terminal (network interface circuit 10 of Fig. 4) connected to said data processing unit via a network; and a printer (P1 of Fig. 1) connected to said portable communication terminal, wherein said portable communication terminal comprises: a transmitter which transmits printer identification information for identifying said printer to said data processing unit (S605 of Fig. 6, col. 6, lines 61-67); and a device which notifies said data processing unit of data targeted for printing (S608 of Fig. 6, col. 7, lines 16-19) and printing condition (S609, col. 7, lines 21-23), said data processing unit comprises: a device which acquires said data targeted for printing notified by said portable communication terminal (S608 of Fig. 6, col. 7, lines 16-19); a device which changes said acquired data targeted for printing in accordance with said printing condition notified by said portable communication terminal (S611 of Fig. 6, col. 7, lines 29-33); a device which generates print data for printing said changed data

targeted for printing by said printer based on said changed data targeted for printing and said printer identification information (S612 of Fig. 6, col. 7, lines 34-39); and a transmitter which transmits the generated print data to said portable communication terminal via said network (S612 of Fig. 6, col. 7, lines 34-39), and said portable communication terminal further comprises: a transmitter which transmits said generated print data to said printer (modulator 5w of Fig. 5, col. 6, lines 17-19). The print condition as disclosed by Taniguchi et al. is a password required for the data to be sent to the printer. The password is checked and the data is either changed by directing the data to the printer or preventing the printer from receiving the data.

7. Claim 19 is rejected under 35 U.S.C. 102(e) as being anticipated by Sasaki U.S. Patent 5,228,118.

Sasaki discloses a print support method comprising: receiving printer identification information (S31 of Fig. 8, col. 9, lines 53-65) for identifying a printer (LP of Fig. 3) connected to a portable communication terminal (data processing device of Fig. 1) and printing condition (S38 of Fig. 8, col. 10, lines 25-27) for printing data target for printing data targeted for printing from the portable communication terminal via a network; acquiring said data targeted for printing (inquiring means of Fig. 2); changing said data targeted for printing based on the received printing condition (S39 of Fig. 8, col. 10, lines 30-35); and transmitting a printer driver corresponding to [a printer specified by] said printer identification information (S16-S20 of Fig. 6, col. 7, lines 44-64) and said changed data targeted for printing (S39 of Fig. 8, col. 10, lines 30-35) to said

portable communication terminal via said network. The print condition as disclosed by Sasaki is whether the printer is unoccupied. After it is determined that the printer is unoccupied, the destination of the data is changed to the address of the unoccupied printer.

8. Claims 22, 26-29, 31, 32 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Dervarics U.S. Patent 6,553,240.

Referring to claim 22, Dervarics discloses a portable communication terminal (WAP device 100 of Fig. 1) capable of accessing to a server device on a network (server, col. 6, lines 12-21) and downloading data provided by said server device, said portable communication terminal comprising: an interface for connecting an external device (infrared link 110 of Fig. 1, col. 3, lines 37-40); an acquisition device which acquires from said server device (col. 6, lines 12-21), a data processing program that corresponds to the external device connected to said interface (linking application, col. 5, lines 48-63); and a transfer device which processes data downloaded from said server device by means of the data processing program acquired by said acquisition means and transmits the processed data to said external device connected to said interface (infrared port 202 of Fig. 2, col. 7, lines 30-36).

Referring to claim 26, Dervarics discloses the portable communication terminal according to claim 22, wherein said downloaded data comprises one of image data (col. 5, lines 48-53).

Referring to claim 27, Dervarics discloses a data acquisition method for accessing to a server device on a network (server, col. 6, lines 12-21) by a portable communication terminal (WAP device 100 of Fig. 1) and acquiring data provided by said server device by the portable communication terminal, said method comprising: acquiring the data provided by said server device (col. 6, lines 12-21), acquiring a data processing program that corresponds to an external device connected to said portable communication terminal from said server device (linking application, col. 5, lines 48-63); and processing data provided by said server device by means of the data processing program (col. 7, lines 30-36), and transferring the processed data to the external device connected to said portable communication terminal (infrared port 202 of Fig. 2, col. 7, lines 30-36).

Referring to claim 28, Dervarics discloses the data acquisition method according to claim 27, further comprising: downloading from said server device a detection program for detecting type of said external device prior to downloading said data processing program; detecting type of the external device connected to said portable communication terminal by means of said detection program; and downloading said data processing program from said server device based on the type of said external device. Dervarics discloses a detection program for the WAP device (col. 7, lines 30-36). While Dervarics states that the driver is incorporated into the operating system of the mobile phone, it is stated that the device is capable of downloading programs and linking applications (col. 5, lines 48-63). If an unsupported format type is downloaded, a corresponding driver can be downloaded and installed by the mobile phone.

Referring to claim 29, Dervarics discloses the data acquisition method according to claim 27, wherein said external device comprises a printer (printer 120 of Fig. 1) and said data processing program comprises a printer driver for converting the data downloaded from said server device into print data that can be printed by said printer (driver, col. 7, lines 30-36).

Referring to claim 31, Dervarics discloses the data acquisition method according to claim 27, wherein said downloaded data comprises one of image data (col. 5, lines 48-53).

Referring to claim 32, Dervarics discloses a printing method for printing data provided by a server device on a network (server, col. 6, lines 12-21) by a printing apparatus (printer 120 of Fig. 1) connected to a portable communication terminal (WAP device 100 of Fig. 1) for accessing to the server device via said network, said printing method comprising: downloading a printer driver that corresponds to said printing apparatus from said server device (linking application, col. 5, lines 48-63); changing by said printer driver the data provided by said server device to print data that can be printed by said printing apparatus (col. 7, lines 30-36); and printing said print data by said printing apparatus (col. 7, lines 30-36).

Referring to claim 35, Dervarics discloses the printing method according to claim 32, wherein said portable communication terminal and said printer communicates with each other via a wireless communication line (wireless port 202 of Fig. 2, col. 5, lines 15-18).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer et al. U.S. Patent 6,493,104 as applied to claims 1 and 9 above, and further in view of Mousseau et al. U.S. Patent 6,779,019.

Referring to claim 3, Cromer et al. discloses the peripheral device according to claim 1. Cromer et al. does not expressly disclose a peripheral device that downloads image or music data. Mousseau et al. discloses downloaded data comprises one of image data and music data (col. 9-10, lines 64-67, 1-18). Cromer et al. and Mousseau et al. are combinable because they are from a similar problem solving area of accessing a printer wirelessly. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to allow the peripheral device of Cromer et al. to download different types of data as disclosed by Mousseau et al. The motivation for doing so would have been to utilize a standard driver for downloading data and provide flexibility for new features. Therefore, it would have been obvious to combine Mousseau et al. with Cromer et al. to obtain the invention as specified in claim 3.

Referring to claim 10, Cromer et al. discloses the peripheral device according to claim 1. Cromer et al. does not expressly disclose a peripheral device that downloads

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image or music data. Mousseau et al. discloses downloaded data comprises one of image data and music data (col. 9-10, lines 64-67, 1-18). Cromer et al. and Mousseau et al. are combinable because they are from a similar problem solving area of accessing a printer wirelessly. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to allow the peripheral device of Cromer et al. to download different types of data as disclosed by Mousseau et al. The motivation for doing so would have been to utilize a standard driver for downloading data and provide flexibility for new features. Therefore, it would have been obvious to combine Mousseau et al. with Cromer et al. to obtain the invention as specified in claim 10.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer et al. U.S. Patent 6,493,104 as applied to claim 7 above, and further in view of Dervarics U.S. Patent 6,553,240.

Cromer et al. discloses the data acquisition method according to claim 7 but does not expressly disclose storing browsable data at said server device; requesting edition of the browsable data by said peripheral device; and editing the browsable data by said server device, the edited data being registered by the peripheral device. Dervarics discloses storing browsable data at said server device (internet content); requesting edition of the browsable data by said peripheral device (WML, col. 3, lines 37-41); and editing the browsable data by said server device (HTML to WML filter program), the edited data being registered by the peripheral device (col. 3, lines 1-3). An HTML to WML filter program is not explicitly indicated in the disclosure of Dervarics but was

commonly used at the time the invention was made (Official Notice, See MPEP 2144.03). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the wireless printing network of Cromer et al. with the mobile phone of Dervarics. One of ordinary skill in the art would have been motivated to do this to provide the convenience of an internet enabled mobile phone that can print downloaded data for locations where hardwired networks are impossible or undesired to implement. The disclosure of Dervarics includes a generic printer and a generic PC which are interchangeable with the printer and portable computer disclosed by Cromer et al.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. U.S. Patent 6,348,972 as applied to claim 11 above, and further in view of Salomon U.S. Patent 6,467,709.

Taniguchi et al. discloses the print support method of claim 11 but does not expressly disclose a printing condition comprising a size of a printing medium used for printing said data targeted for printing by said printer. Salomon discloses said printing condition comprises a size of a printing medium used for printing said data targeted for printing by said printer (col. 3, lines 16-30). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the mailing machine printer of Salomon into the network print system of Taniguchi et al. One of ordinary skill in the art would have been motivated to do this to allow the mailing machine printer to select print jobs that can only be printed by the mailing machine

printer, such as an envelope, and to reduce printing mistakes and printing time. The network print system would allow other printers to select print jobs that only they could print, such as reports.

12. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. U.S. Patent 6,348,972 as applied to claim 11 above, and further in view of Dervarics U.S. Patent 6,553,240.

Referring to claim 14, Taniguchi et al. discloses the print support method of claim 11 but does not expressly disclose a printing condition concerning a format. Dervarics discloses said printing condition comprises a condition concerning a format when said data targeted for printing is printed by said printer (col. 5, lines 48-63). Dervarics discloses that if a particular format of data is unsupported by the WAP device software, a linking application can be downloaded to allow the data to be printed. The printing condition disclosed is whether the WAP device 100 supports the downloaded data format. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the mobile phone of Dervarics into the network print system of Taniguchi et al. One of ordinary skill in the art would have been motivated to do this to improve a document security and allow the mobile phone to have password protection for receiving printed material from a printer. The printer would require a connection to the mobile phone of Dervarics, but such a connection could be applied by the printer either wirelessly or through the use of a wire connecting the mobile phone with the printing network.

Referring to claim 15, Taniguchi et al. discloses the print support method of claim 11 but does not expressly disclose data targeted for printing is image data, and said generating comprises: changing the number of pixels of said image data based on the printing condition; and generating said print data from said image data of which the number of pixels is changed. Dervarics discloses said data targeted for printing is image data (col. 5, lines 48-53), and said generating comprises: changing the number of pixels of said image data based on the printing condition; and generating said print data from said image data of which the number of pixels is changed (col. 2, lines 20-27). Dervarics discloses that the data displayed on the mobile phone and the data sent to the printer differ in line and area size. A mobile phone would have to alter a viewed image before sending the image to the printer. While not explicitly stated, the standard method of altering an image is to change the resolution or number of pixels (Official Notice, See MPEP 2144.03). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the mobile phone of Dervarics into the network print system of Taniguchi et al. One of ordinary skill in the art would have been motivated to do this to allow the mobile phone of Dervarics to have added security by utilizing password protection for receiving printed material from a printer as disclosed by Taniguchi et al. The printer would require a connection to the mobile phone of Dervarics, but such a connection could be applied by the printer either wirelessly or through the use of a wire connecting the mobile phone with the printing network.

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. U.S. Patent 6,348,972 as applied to claim 11 above, and further in view of Sasaki U.S. Patent 5,228,118.

Taniguchi et al. discloses the print support method of claim 11 but does not expressly disclose the a printer driver corresponding to printer identification information. Sasaki discloses initiating a printer driver corresponding to a printer specified by said printer identification information (S16-S20 of Fig. 6, col. 7, lines 44-64) and wherein said generating is executed by said activated printer driver (col. 8, lines 20-23). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the data processing device of Sasaki into the network print system of Taniguchi et al. One of ordinary skill in the art would have been motivated to do this to allow a computer to automatically install a printer driver for a particular printer if it is needed while also providing password protection of a print job for a user at the printer.

14. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. U.S. Patent 6,348,972 as applied to claim 11 above, and further in view of Cromer et al. U.S. Patent 6,493,104.

Taniguchi et al. discloses the print support method of claim 11 but does not expressly disclose a portable communication terminal and printer that communicate with each other via a wireless communication line. Cromer et al. discloses said portable communication terminal and said printer communicate with each other via a wireless communication line (antenna 118 of Fig. 1, col. 3, lines 37-43 and antenna 120, col.5,

lines 18-24). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the wireless printer of Cromer et al. into the network print system of Taniguchi et al. One of ordinary skill in the art would have been motivated to do this to allow the printer and computer to communicate without the need for a printer cable and to allow a user greater security by utilizing entering a password to print a job at the selected printer.

15. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. U.S. Patent 6,348,972 as applied to claim 11 above, and further in view of Herrod et al. U.S. Patent 6,405,049.

Taniguchi et al. discloses the print support method of claim 11 but does not expressly disclose a printer at a charger for charging a secondary battery of said portable communication terminal. Herrod et al. discloses said printer (printer 44 of Fig. 3) is provided at a charger for charging a secondary battery of said portable communication terminal (charger 1020 of Fig. 9, col. 14, lines 20-40). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the portable data terminal and cradle of Herrod et al. into the network print system of Taniguchi et al. One of ordinary skill in the art would have been motivated to do this to allow the portable data terminal of Herrod et al. to have password protection for receiving printed material from a printer.

16. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. U.S. Patent 6,348,972 and Dervarics U.S. Patent 6,553,240.

Taniguchi et al. and Dervarics disclose a print support system comprising: a data processing unit (C1 of Taniguchi et al. and server of Dervarics) for a print support; at least one portable communication terminal (network interface circuit 10 of Taniguchi et al. and WAP device 100 of Dervarics) connected to said data processing unit via a network; and a printer (P1 of Taniguchi et al. and printer 120 of Dervarics et al.) connected to said portable communication terminal, wherein said portable communication terminal comprises: a transmitter which transmits printer identification information for identifying said printer to said data processing unit (S605 of Fig. 6, col. 6, lines 61-67 of Taniguchi et al.); and a device which notifies said data processing unit of data targeted for printing (S608 of Fig. 6, col. 7, lines 16-19 of Taniguchi et al.) and printing condition (S609 of Fig. 6, col. 7, lines 21-23 of Taniguchi et al.), said data processing unit comprises: a device which acquires said data targeted for printing notified by said portable communication terminal (col. 6, lines 13-22 of Dervarics); a device which changes said acquired data targeted for printing in accordance with said printing condition notified by said portable communication terminal (S611 of Fig. 6, col. 7, lines 29-33 of Taniguchi et al.); a transmitter which transmits a printer driver corresponding to a printer specified by said printer identification information and said changed data targeted for printing to said portable communication terminal via said network (linking application, col. 5, lines 48-63 of Dervarics), and said portable communication terminal further comprises: receiver which receives said printer driver

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and said changed data targeted for printing transmitted from said data processing unit (cellular transceiver 201 of Fig. 2, col. 5, lines 10-13 of Dervarics); a memory which stores the received printer driver (flash ROM 205 of Fig. 2, col. 5-6, lines 64-67, 1-3 of Dervarics) and said changed data (print buffer, Fig. 2 of Dervarics) targeted for printing a device which generates print data for printing said stored changed data targeted for printing by said printer based on said stored changed data targeted for printing by means of said stored printer driver (col. 7, lines 30-36 of Dervarics); and a transmitter which transmits said generated print data to said printer (infrared port 202 of Fig. 2, col. 7, lines 30-36 of Dervarics). The print condition as disclosed by Taniguchi et al. is a password required for the data to be sent to the printer. The password is checked and the data is either changed by directing the data to the printer or preventing the printer from receiving the data. The WAP device 100 as disclosed by Dervarics is capable of downloading linking applications for supporting a type of data format, which can then be printed. This is equivalent to downloading a print driver prior to printing. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the mobile phone of Dervarics into the network print system of Taniguchi et al. One of ordinary skill in the art would have been motivated to do this to allow the mobile phone to have password protection for receiving printed material from a printer. The printer would require a connection to the mobile phone of Dervarics, but such a connection could be applied by the printer either wirelessly or through the use of a wire connecting the mobile phone with the printing network.

17. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cromer et al. U.S. Patent 6,493,104 as applied to claim 22 above, and further in view of Sasaki U.S. Patent 5,228,118.

Referring to claim 24, Cromer et al. discloses the portable communication terminal of claim 22 but does not expressly disclose a device which notifies said server device of identification information for identifying said printer and printing condition; and a receiver which receives a printer driver stored in said server device and corresponding to the printer specified by said identification information and data targeted for printing after changed in accordance with an operation of said printer driver based on the notified print condition, and wherein said transfer device converts changed data targeted for printing received by said receiver into print data by the printer driver received by said receiver. Sasaki discloses a device which notifies said server device of identification information for identifying said printer (S31 of Fig. 8, col. 9, lines 53-65) and printing condition (S38 of Fig. 8, col. 10, lines 25-27); and a receiver which receives a printer driver stored in said server device and corresponding to the printer specified by said identification information and data targeted for printing after changed in accordance with an operation of said printer driver based on the notified print condition (RAM 50 of Fig. 5, col. 7, lines 59-64), and wherein said transfer device converts changed data targeted for printing received by said receiver into print data by the printer driver received by said receiver (col. 8, lines 11-23). The print condition as disclosed by Sasaki is whether the printer is unoccupied. After it is determined that the printer is unoccupied, the destination of the data is changed to the address of the unoccupied printer. At the time

the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the wireless printer of Cromer et al. into the printing system of Sasaki. One of ordinary skill in the art would have been motivated to do this to allow a printing system for selecting a printer, which improves document security and reduces printing mistakes, to be utilized by multiple wireless printers, which eliminate the need for printer cables.

Referring to claim 25, Cromer et al. discloses the portable communication terminal of claim 22 but does not expressly disclose a transmitter which transmits identification information for identifying said printer to said server device; a receiver which receives data targeted for printing and a printer driver corresponding to the printer specified by said identification information as the data provided by said server device; and a device which specifies a printing condition, and wherein said transfer device changes said data targeted for printing based on the printing condition prior to converting said data targeted for printing into print data by the printer driver received by the receiver. Sasaki discloses a transmitter which transmits identification information for identifying said printer to said server device (S31 of Fig. 8, col. 9, lines 53-65); a receiver which receives data targeted for printing and a printer driver corresponding to the printer specified by said identification information as the data provided by said server device (RAM 50 of Fig. 5, col. 7, lines 59-64); and a device which specifies a printing condition (S38 of Fig. 8, col. 10, lines 25-27), and wherein said transfer device changes said data targeted for printing based on the printing condition prior to converting said data targeted for printing into print data by the printer driver received by

the receiver (col. 8, lines 11-23). The print condition as disclosed by Sasaki is whether the printer is unoccupied. After it is determined that the printer is unoccupied, the destination of the data is changed to the address of the unoccupied printer. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the wireless printer of Cromer et al. into the printing system of Sasaki. One of ordinary skill in the art would have been motivated to do this to allow a printing system for selecting a printer, which improves document security and reduces printing mistakes, to be utilized by multiple wireless printers, which eliminate the need for printer cables.

18. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dervarics U.S. Patent 6,553,240 as applied to claim 29 above, and further in view of Taniguchi et al. U.S. Patent 6,348,972.

Dervarics discloses the data acquisition method according to claim 29, but does not expressly disclose transmitting identification information for identifying the printer to said server device; notifying said server device of a printing condition; and acquiring from said server device, data targeted for printing after processed based on said printing condition by means of a printer driver stored in said server device and corresponding to the printer specified by said identification information. Taniguchi et al. discloses transmitting identification information for identifying the printer to said server device (S605 of Fig. 6, col. 6, lines 61-67); notifying said server device of a printing condition (S609, col. 7, lines 21-23); and acquiring from said server device, data

targeted for printing after processed based on said printing condition by means of an printer driver stored in said server device and corresponding to the printer specified by said identification information (S612 of Fig. 6, col. 7, lines 34-37). According to Taniguchi et al., S605 involves selecting a computer with a specific printer. In the next step the computer sends data to the specific printer, and while it is not explicitly stated by Taniguchi et al., it would be necessary for the computer to obtain printer identification for sending data to the printer. The print condition as disclosed by Taniguchi et al. is a password required for the data to be sent to the printer. The password is checked and the data is either changed by directing the data to the printer or preventing the printer from receiving the data. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the mobile phone of Dervarics into the network print system of Taniguchi et al. One of ordinary skill in the art would have been motivated to do this to allow the mobile phone to have password protection for receiving printed material from a printer. The printer would require a connection to the mobile phone of Dervarics, but such a connection could be applied by the printer either wirelessly or through the use of a wire connecting the mobile phone with the printing network.

19. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dervarics U.S. Patent 6,553,240 as applied to claim 32 above, and further in view of Sasaki.

Referring to claim 33, Dervarics discloses the printing method according to claim 32, but does not expressly disclose transmitting identification information for identifying said printing apparatus to said server device; notifying said server device of printing condition; receiving a printer driver stored in said server device and corresponding to the printing apparatus specified by said identification information and data targeted for printing after modified by said printer driver based on the printing condition; and changing the received, modified data targeted for printing into print data by said received printer driver. Sasaki discloses transmitting identification information (S31 of Fig. 8, col. 9, lines 53-65) for identifying said printing apparatus (LP of Fig. 3) to said server device (data processing device of Fig. 1); notifying said server device of printing condition (S38 of Fig. 8, col. 10, lines 25-27); receiving a printer driver stored in said server device and corresponding to the printing apparatus specified by said identification information and data targeted for printing after modified by said printer driver based on the printing condition (S20 of Fig. 6, col. 7, lines 59-64); and changing the received, modified data targeted for printing into print data by said received printer driver (S39 of Fig. 8, col. 10, lines 30-35). The print condition as disclosed by Sasaki is whether the printer is unoccupied. After it is determined that the printer is unoccupied, the destination of the data is changed to the address of the unoccupied printer. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the mobile phone of Dervarics into the printing system of Sasaki. One of ordinary skill in the art would have been motivated to do this to allow the mobile phone to update a printer driver automatically if it is needed.

Referring to claim 34, Dervarics discloses the printing method according to claim 32, but does not expressly disclose transmitting identification information for identifying said printing apparatus to said server device; receiving data targeted for printing and the printer driver stored in said server device and corresponding to the printing apparatus specified by said identification information as the data provided by said server device; specifying a printing condition; and modifying said data targeted for printing based on said printing condition prior to converting said data targeted for printing into print data by said received printer driver. Sasaki discloses transmitting identification information (S31 of Fig. 8, col. 9, lines 53-65) for identifying said printing apparatus (LP of Fig. 3) to said server device (data processing device of Fig. 1); receiving data targeted for printing and the printer driver stored in said server device and corresponding to the printing apparatus specified by said identification information as the data provided by said server device (S20 of Fig. 6, col. Lines 59-64); specifying a printing condition (S38 of Fig. 8, col. 10, lines 25-27); and modifying said data targeted for printing based on said printing condition prior to converting said data targeted for printing into print data by said received printer driver (S39 of Fig. 8, col. 10, lines 30-35). The print condition as disclosed by Sasaki is whether the printer is unoccupied. After it is determined that the printer is unoccupied, the destination of the data is changed to the address of the unoccupied printer. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the mobile phone of Dervarics into the printing system of Sasaki. One of ordinary skill in the art would have been motivated to

do to provide a system for updating the printer driver of the mobile phone in the case where the mobile phone does not have the correct or most recent printer driver.

20. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dervarics U.S. Patent 6,553,240 as applied to claim 32 above, and further in view of Herrod et al. U.S. Patent 6,405,049.

Dervarics discloses the printing method of claim 32 but does not expressly disclose a printer for charging a secondary battery of said portable communication terminal. Herrod et al. discloses said printer (printer 44 in Fig. 2a) is provided at a charger for charging a secondary battery of said portable communication terminal (charger 1020 of Fig. 9, col. 14, lines 20-40). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine cradle of Herrod et al. with the mobile phone of Dervarics. One of ordinary skill in the art would have been motivated to do this to allow convenient charging for the battery of the mobile phone. While not explicitly stated by Dervarics, charging of a cellular battery is conventional for a mobile phone (Official Notice, See MPEP 2144.03).

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

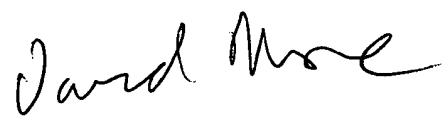
Kim U.S. Patent No. 6,081,120 discloses a mobile entertainment and communication device that can download data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter K. Huntsinger whose telephone number is (703)306-4088. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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